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EnergyLab Nordhavn is a large-scale integrated research and demonstration project that contributes to the grand challenge of transforming the energy system to efficiently integrate a large share of renewable energy. The project develops solutions for a cost-effective future smart energy system that integrates multiple energy infrastructures (electricity, thermal, transportation) and provides an intelligent control of subsystems and components – providing necessary flexibility for efficient utilisation of renewable energy. The project results are based on combining a number of elements established in Copenhagen's Nordhavn, one of the largest development districts in Europe.

With a diverse set of such elements in the electrical and heating grids, in the built environment, and with a dedicated showroom, the EnergyLab Nordhavn project is establishing a living laboratory and an environment for strong research-based innovation in smart energy technologies, innovative business models and energy management tools for the future sustainable low-energy city districts.

Particularly exciting is the synergy between

- Possible new regulation, tariffs and energy subscriptions
- Heat pumps, flexible heat consumers, home automations systems and a grid connected battery
- The showroom and a venue for co-creation.

EnergyLab Nordhavn partners are DTU BYG, DTU MEK, DTU CEE, Københavns Kommune, Radius Elnet, HOFOR, By&Havn, ABB, Danfoss, Balslev, MetroTherm, Glen Dimplex, CleanCharge and the PowerLab facilities.

The project has a total budget of € 19 mio, of which € 11 mio are funded in two rounds by the Danish Energy Technology Development and Demonstration Programme (EUDP).